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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 10/522,672
Filing Date: August 16, 2005
Appellant(s): STENZEL ET AL.

Harris A. Pitlik
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 06/22/2009 appealing from the Office action mailed 06/10/2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

However, an appeal in US 10/523,029 may have a bearing on the Board's decision in this appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

**6,180,076 UHRLANDT ET AL. 01-2001**

**(9) Grounds of Rejection**

**The following ground(s) of rejection are applicable to the appealed claims:**

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uhrlandt et al. US Patent No. 6,180,076, as generally set forth in the rejection mailed 06/10/2009

In regard to claims 1, Uhrlandt et al. teach a precipitated silica with the characteristics [Claim 1]:

- BET surface area is 120-300 $m^2/g$
- CTAB surface area is 100-300 $m^2/g$
- DBP index number is 150-300g/100g

Therefore the Uhrlandt reference teaches the ranges claimed in the instant application but fails to teach the claimed range of Sears number.

Uhrlandt et al. teach a Sears index, defined as consumption of 0.1 N NaOH, at a value of 6-25 ml [Claim 1] while the instant claim is drawn to a product with a Sears number, defined as $V_2$, at a value of 23-35 ml/(5g). Looking to the instant specification to equate these two values, Applicant writes that the measurements are standardized to theoretical weighted samples of 1 g and extended by five [Page 16, lines 12-13].

Therefore, extending the values in the prior art by five would encompass the claimed ranges and the product disclosed in Uhrlandt et al. is thought to be substantially the same as the product of instant claim 1.

In addition, it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to determine this parameter (Sears number) because it is a measure of the concentration of hydroxyl groups on the surface of the silica.

In regard to claim 2, Uhrlandt et al. teach CTAB surface area is 100-300 $m^2/g$ in claim 1. Therefore a maximum of 300 $m^2/g$ is taught.

In regard to claim 3, Uhrlandt et al. teach the wK coefficient is the ratio of the peak height of the non-degradable particles (B), the maximum of which lies in the range of 1.0-100 µm, to the peak height of the degraded particles (A), the maximum of which lies in the range of <1.0 µm [See Figure 6 or Column 6, lines 27-30]. The WK coefficient is taught in Uhrlandt et al. to be less than 3.4 [See Claim 1].

In regard to claim 4, Uhrlandt et al. teach modifying the precipitated silica with organosilanes of the formula I to III [See Column 3, lines 55-65]. The disclosed formulas are the same as those of the instant claim 4.

**(10) Response to Argument**

Claims 1-4

**Applicants argue** the disclosure of the Uhrlandt reference is significantly broader than the present claims and all of the Examples of Uhrlandt et al. are outside the terms of the present claims.

Uhrlandt et al. teach values in the range:

- BET surface area is 120-300 $m^2/g$
- CTAB surface area is 100-300 $m^2/g$
- DBP index number is 150-300g/100g
- Sears Index is 20-83 mL/(5 g)

Uhrlandt et al. teach a Sears index, defined as consumption of 0.1 N NaOH, at a value of 6-25 ml [Claim 1]. while the instant claim is drawn to a product with a Sears number, defined as $V_2$, at a value of 23-35 ml/(5g). Looking to the instant specification to equate these two values, Applicant writes that the measurements are standardized to theoretical weighted samples of 1 g and extended by five [Page 16, lines 12-13]. Therefore, extending the values in the prior art by five would encompass the claimed ranges and the product disclosed in Uhrlandt et al. which are measured in accordance with G.W. Sears, Analty. Chemistry 12 (1956) 1982 (volume in mililiters of 0.1 N sodium hydroxide required for a 1.5 g sample of silica).

**Applicants argue** the teachings of Urhlandt et al. are significantly broader and inclusive of and/or overlap with the corresponding parameters of the present claims. For

example, all of the Examples of Uhrlandt et al. are outside the terms of the present claims. The present inventors have succeeded in finding and demarcating, from an unimaginable number of theoretically disclosed silicas in Uhrlandt et al. those which are suitable for incorporation in motor bikes, trucks and high-speed automobile tires.

In response to the argument that the parameters of Uhrlandt et al. and the Examples are significantly broader and inclusive of and/or overlap with the corresponding parameters of the present claims the Examiner respectfully points out that a patent's disclosure is not limited to its examples. "The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems which with they are concerned. They are part of the literature of the art, relevant for all they contain." In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)). A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including nonpreferred embodiments. See MPEP 2123 [R-5]. The prior art of record discloses and/or suggests the ranges claimed by the Applicants. One skilled in the art could have reasonably selected and optimized the claimed properties from the prior art to make the instant invention.

**Applicants argue** that the silicas for commercial-vehicle tires have requirements that are clearly different from that of silicas for passenger-car tires. The Examiner respectfully points out that the claims are drawn to a silica, not to tires. Although the

claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The intended use of the precipitated silicas carries no patentable weight. There is no mention of tires in the claims.

**Applicants argue** Uhrlandt et al. disclose very broad ranges for BET, CTAB, DBP number and Sears number. In response to the argument that the claimed "combination of parameters," in effect, claims only a very small and narrow part of the disclosure of Uhrlandt et al., the Examiner respectfully points out that the instantly claimed ranges are overlapping with and/or encompassed by Uhrlandt et al., which is a case of prima facie obviousness.

**Applicants argue** the presently claimed silica shows significant values with respect to dynamic modulus, CTAB values, and the tan δ values over the prior art. In response to appellants' argument that the closest prior art to the presently claimed invention is Example 6 in Uhrlandt et al. and that it doesn't present a case of prima facie obviousness (Wehmeier Declaration filed 08/25/2008), the examples of Uhrlandt et al. cannot be compared to the instant invention in any way because none of the examples of Uhrlandt et al. have all the parameters within the instantly claimed ranges. A patent is not limited to its examples or preferred embodiments. Appellants' have not shown that a silica of Uhrlandt et al. with parameters as per the instant invention would not have a similar values of dynamic modulus or tan δ as determined by the rubber-technical tests.

The declaration filed 08/25/2008 refers only to the system described in the above referenced application and not to the individual claims of the application. Thus, there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. See MPEP § 716. The teachings of the declaration are drawn to the dynamic modulus and tensile strength and other characteristics which are not claimed. Furthermore the range of CTAB surface area values of the claimed invention is previously disclosed in the Uhrlandt et al. reference used to reject the claims.

**Applicants argue** the silica taught by Uhrlandt et al. would not have the characteristics of road abrasion resistance. Applicants has failed to show that the silica of Uhrlandt et al. does not posses said property. The examples of Uhrlandt et al. cannot be compared to the instant invention in any way because none of the examples of Uhrlandt et al. have all the parameters within the instantly claimed ranges. A patent is not limited to its examples or preferred embodiments. Appellants' have not shown that a silica of Uhrlandt et al. with parameters as per the instant invention would not have a similar improvement with respect to road abrasion.

For these reasons, the teachings of the reference are proper and should be affirmed.

Claim 20

**Applicants argue** the Search number $V_2$ having units of ml/(5g) and in the instant claims and the Sears index, described in units of ml in Uhrlandt et al. are the same value and the ranges of the prior art do no encompass the values presently claimed.

Uhrlandt et al. teach a Sears index, defined as consumption of 0.1 N NaOH, at a value of 6-25 ml [Claim 1] while the instant claim is drawn to a product with a Sears number, defined as $V_2$, at a value of 23-35 ml/(5g). Looking to the instant specification to equate these two values, Applicant writes that the measurements are standardized to theoretical weighted samples of 1 g and extended by five [Page 16, lines 12-13]. The measurement method used in the prior art reference is in accordance with G.W. Sears, Analty. Chemistry 12 (1956) 1982. Based on the this measurement method, the Sears number, reported in ml by Uhlandt is a volume in milliliters of 0.1 N sodium hydroxide required to titrate a 1.5 g sample of silica. Because the Sears value is a measurement involving a titration procedure, the sample size is a parameter that cannot be ignored. In titrating to a value of pH, the number of moles of silica material and the number of moles of NaOH are related. Therefore if 6-25 ml of NaOH is the amount required to titrate a 1.5g sample (technique used in the Sears reference and the Uhrlandt reference), then this value, expanded to 5g of silica would encompass a range of 20-83 mL based on the linear relationship between volume, molarity/normality, and sample weight.

For these reasons, the teachings of the reference are proper and should be affirmed.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jennifer.Smith./

AU 1793

Conferees:

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